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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/295,163	04/20/1999	ERSKINE R. BARBOUR	BMS-0082/B98	6872
23377	7590	06/02/2004	EXAMINER	
WOODCOCK WASHBURN LLP ONE LIBERTY PLACE, 46TH FLOOR 1650 MARKET STREET PHILADELPHIA, PA 19103			ABELSON, RONALD B	
			ART UNIT	PAPER NUMBER
			2666	12

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/295,163

Applicant(s)

BARBOUR ET AL.

Examiner

Ronald Abelson

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-8 is/are rejected.
- 7) ☒ Claim(s) 4,5 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2666

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Taylor (US 5,209,560).

Regarding claims 1 and 7, Taylor teaches a method and apparatus for a digital serial communications hub (fig. 22 boxes 454, 450, 480, 482, 470, 472, 474, 468).

The hub comprises a controller (fig. 22 box 454).

The hub comprises a plurality of receiver-transmitter units operatively coupled to the controller (fig. 22 470, 472, 474, 468); wherein the controller is programmed to delay (fig. 22 box 482, col. 37 lines 7-10), route (col. 37 lines 13-17), and regenerate data (retimed, reconstructed, fig. 22 box 468, 470, 472, 474, col. 10 line 66 - col. 11 line 10), at mixed character framing bits and mixed protocols (multi-protocol controller, fig. 5 box 246, col. 7 lines 50-54, fig. 22 box 454, col. 35 lines 62-65).

Art Unit: 2666

Note, controllers (fig. 5 box 246 and fig. 22 box 454) are the same devices. Frames of different protocols may have different framing bits.

Regarding baud rates, Taylor teaches a Rockwell 68561 multi-protocol controller (col. 7 lines 57-58). It is well known in the art that Rockwell 68561 supports IEEE 802.3 and IEEE 802.5 protocols (Yacoby: col. 1 lines 12-15, col. 9 lines 44-45). It is also well known in the art that IEEE 802.3 and IEEE 802.5 protocols operate at mixed baud/bit rates (Newton: pg 378).

Regarding the limitation digitizing and quantizing all incoming data in the time domain including measuring data transition times (retimed, fig. 22 box 468, 470, 472, 474, col. 10 line 66 - col. 11 line 10).

Regarding claim 2, the controller is programmed to filter for error correction (fig. 22 box 450, col. 37 lines 7-10) and store in memory the time domain data (fig. 22 box 482, col. 37 lines 7-10). Note, filtering is routinely performed to reduce noise before error correction is applied.

Art Unit: 2666

Regarding claims 3 and 8, the steps of measuring analyzing, and reconstructing (retimed, reconstructed, fig. 22 box 468, 470, 472, 474, col. 10 line 66 - col. 11 line 10).

Regarding claim 6, the controller is further programmed to delay retransmission (diagnostic mode is entered, col. 37 lines 28-32).

Allowable Subject Matter

3. Claims 4, 5, and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 4 and 9, nothing in the prior art of the record teaches or fairly suggests determining a common denominator of a standard baud rate, in combination with all the other limitations listed in the claim.

Regarding claim 5, nothing in the prior art of the record teaches or fairly suggests the use of a port identifier associated with the received data to determine the ports on which the data will be retransmitted, in combination with all the other limitations listed in the claim.

Art Unit: 2666

Response to Arguments

4. Applicant's arguments filed 3/31/2004 have been fully considered but they are not persuasive.

Regarding claims 1 and 7, the applicant contends that Taylor does not teach a controller that "is programmed to delay, route and regenerate data at mixed baud rates, mixed character framing bits and mixed protocols" (applicant: pg. 3 lines 1-3). The examiner maintains that Taylor teaches the controller is programmed to delay (fig. 22 box 482, col. 37 lines 7-10), route (col. 37 lines 13-17), and regenerate data (retimed, reconstructed, fig. 22 box 468, 470, 472, 474, col. 10 line 66 - col. 11 line 10), at mixed character framing bits and mixed protocols (multi-protocol controller, fig. 5 box 246, col. 7 lines 50-54, fig. 22 box 454, col. 35 lines 62-65).

Note, controllers (fig. 5 box 246 and fig. 22 box 454) are the same devices. Frames of different protocols may have different framing bits.

Regarding baud rates, Taylor teaches a Rockwell 68561 multi-protocol controller (col. 7 lines 57-58). It is well known in the art that Rockwell 68561 supports IEEE 802.3 and IEEE 802.5 protocols (Yacoby: col. 1 lines 12-15, col. 9 lines 44-

Art Unit: 2666

45). It is also well known in the art that IEEE 802.3 and IEEE 802.5 protocols operate at mixed baud/bit rates (Newton: pg 378).

Regarding the applicant's contention that Taylor does not teach retransmitting the error corrected data (applicant: pg. 3 lines 4-5), the examiner corresponds the applicant's error corrected data with the reconstructed data of Taylor(col. 10 line 66 - col. 11 line 10).

Regarding the applicant's contention that "Taylor simply cannot process the receipt and retransmission of a data transmission for which it does not know the protocol, framing bits, or other necessary information to convert the analog transmission signal into digital information for processing (applicant: pg. 5 lines 16 - 19)" and "Taylor does not teach the receiving and retransmitting of data regardless of the protocol necessary for understanding that data" (applicant: pg. 6 lines 6-10), the examiner agrees. However, nowhere are these limitations found in the claims.

Art Unit: 2666

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (703) 306-5622. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (703) 308-5463. The fax phone number for the

Art Unit: 2666

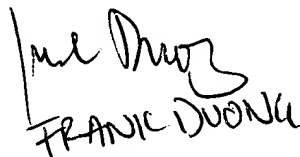
organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ronald Abelson
Examiner
Art Unit 2666

5/26/04



FRANCIS DUONG